

Storm Data and Unusual Weather Phenomena - December 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
ILLINOIS, South				

(IL-Z075) JEFFERSON, (IL-Z076) WAYNE, (IL-Z077) EDWARDS, (IL-Z078) WABASH, (IL-Z080) PERRY, (IL-Z081) FRANKLIN, (IL-Z082) HAMILTON, (IL-Z083) WHITE, (IL-Z084) JACKSON, (IL-Z085) WILLIAMSON, (IL-Z086) SALINE, (IL-Z087) GALLATIN, (IL-Z088) UNION, (IL-Z089) JOHNSON, (IL-Z090) POPE, (IL-Z091) HARDIN, (IL-Z092) ALEXANDER, (IL-Z093) PULASKI, (IL-Z094) MASSAC

12/01/10 00:00 CST	0	Drought
12/24/10 15:00 CST	0	

Drought conditions lingered across southern Illinois early in the month. The drought ended later in December. For the year 2010, most locations ended the year with precipitation deficits of 10 to 13 inches. The long-term moisture deficits were reflected in below normal streamflows on some waterways. In particular, water levels on Rend Lake were too low for safe boating. Agricultural impacts were minimal since the growing season ended in the fall.

(IL-Z075) JEFFERSON, (IL-Z076) WAYNE, (IL-Z077) EDWARDS, (IL-Z078) WABASH, (IL-Z080) PERRY, (IL-Z081) FRANKLIN, (IL-Z082) HAMILTON, (IL-Z083) WHITE, (IL-Z084) JACKSON, (IL-Z085) WILLIAMSON, (IL-Z086) SALINE, (IL-Z087) GALLATIN, (IL-Z088) UNION, (IL-Z089) JOHNSON, (IL-Z090) POPE, (IL-Z091) HARDIN, (IL-Z093) PULASKI, (IL-Z094) MASSAC

12/12/10 05:00 CST	0	Winter Weather
12/12/10 17:00 CST	0	

The first blast of winter weather followed a strong cold front that swept rapidly east across the Mississippi and Lower Ohio Valleys. Behind the front, widespread snow showers and very windy conditions produced difficult travel conditions. Northwest winds ranged from 20 to 30 mph with higher gusts. Peak gusts were as high as 40 mph at Carbondale, 45 mph at Harrisburg, and 47 mph at Carmi. Snow accumulated from one to four inches across southern Illinois. The lowest amounts were an inch or less near the Mississippi River, including the city of Cairo. Widespread amounts from 2 to 3 inches covered most of southern Illinois. A narrow axis of 4-inch amounts extended from Mount Carmel (Wabash County) west-southwest across Interstate 64 to around Benton (Franklin County). There was a pocket of 4 to 6 inches in Johnson County. The snow came down rather heavily at times during the morning, reducing visibility to around one-half mile for a couple hours. Roads became snow-covered and slippery, resulting in numerous accidents. The White County sheriff department handled about 50 vehicle slide-offs and accidents. One sheriff vehicle was struck at the scene of an accident. A tractor-trailer rig crashed on Interstate 64 near the Indiana state line, injuring the driver. A separate accident involving a car that slid off the interstate resulted in one injury. That stretch of Interstate 64 was described as a sheet of ice. The previous day's rainfall was frozen beneath the snow, making roads extremely slick. In Johnson County, a dispatcher reported 15 calls from motorists within two hours. About six of those calls involved property-damage accidents. Several accidents occurred in Hardin County. Strong winds caused blowing and drifting that produced slippery spots well after the snow ended. Visibility was sharply reduced by blowing snow in open farm country. In Jefferson County, a man died in a single-vehicle accident on northbound Interstate 57 on the south edge of Mount Vernon. State police reported zero visibility created by blowing snow contributed to the fatal rollover crash. Dozens of vehicles slid off roads in Franklin County due to blowing and drifting snow. Three people were injured in a wreck on Route 14 in Franklin County that was caused by poor visibility in blowing snow. Drifts of one to two feet were reported in unobstructed open country, specifically in Edwards County in the Wabash Valley. Minor accidents and stranded motorists kept police busy well into the night. Schools were closed the following day in some areas.

(IL-Z075) JEFFERSON, (IL-Z076) WAYNE, (IL-Z077) EDWARDS, (IL-Z078) WABASH, (IL-Z080) PERRY, (IL-Z081) FRANKLIN, (IL-Z082) HAMILTON, (IL-Z083) WHITE, (IL-Z084) JACKSON, (IL-Z085) WILLIAMSON, (IL-Z086) SALINE, (IL-Z087) GALLATIN, (IL-Z088) UNION, (IL-Z089) JOHNSON, (IL-Z090) POPE, (IL-Z091) HARDIN, (IL-Z093) PULASKI, (IL-Z094) MASSAC

12/15/10 19:00 CST	0	Winter Weather
12/16/10 02:00 CST	0	

A low pressure system tracked eastward across western Tennessee. A warm front lifted northward ahead of this system, causing freezing rain. Around one-tenth inch of glazing occurred on most surfaces, including trees and power lines. The main impact was on travel. Secondary roads became hazardous due to ice and slush. Numerous vehicles slid off roads. Schools were closed in some areas. A number of people slipped and fell, including several who required treatment at Franklin County Hospital. Main roads were generally wet, but with some icy spots. Temperatures were just warm enough in the Cairo area that the precipitation fell as plain rain.

(IL-Z075) JEFFERSON, (IL-Z076) WAYNE, (IL-Z077) EDWARDS, (IL-Z078) WABASH, (IL-Z080) PERRY, (IL-Z081) FRANKLIN, (IL-Z082) HAMILTON, (IL-Z083) WHITE, (IL-Z084) JACKSON, (IL-Z085) WILLIAMSON, (IL-Z086) SALINE, (IL-Z087) GALLATIN, (IL-Z088) UNION, (IL-Z089) JOHNSON, (IL-Z090) POPE, (IL-Z091) HARDIN, (IL-Z092) ALEXANDER, (IL-Z093) PULASKI, (IL-Z094) MASSAC

12/24/10 07:00 CST	0	Winter Weather
12/24/10 23:00 CST	0	

A weak low pressure system moved eastward across the Lower Mississippi Valley on Christmas Eve, reaching the Southeast states during the overnight hours. At the same time, a rather strong upper level disturbance moved southeast across the central Plains. This combination of systems resulted in widespread snowfall across southern Illinois. Average snowfall amounts were right around three inches. There was an area of 4 to 6 inches north and west of a line from Mount Carmel to Benton. This included Mount Vernon,

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Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
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Pinckneyville, and Fairfield. The snow came down rather heavily for a few hours, reducing visibility to one-quarter mile and accumulating nearly an inch per hour. Specific snowfall reports included 3.5 inches near Anna, 3 inches at Brookport, Mount Carmel, and Marion, and 5 inches at Sesser. The highest reported amount was 6 inches near Waltonville in Jefferson County. Roads became slick and hazardous, causing an increase in accidents. One accident in Franklin County just east of Christopher resulted in a fatality. A vehicle lost control on snow-covered Route 14 and entered the opposite lane, striking another vehicle. On Interstate 57 in Alexander County, a man was seriously injured in an accident.

INDIANA, Southwest

(IN-Z081) GIBSON, (IN-Z082) PIKE, (IN-Z085) POSEY, (IN-Z086) VANDERBURGH, (IN-Z087) WARRICK, (IN-Z088) SPENCER

12/01/10 00:00 CST	0	Drought
12/24/10 15:00 CST	0	

Drought conditions lingered across southwest Indiana early in the month. The drought ended later in December. For the year 2010, most locations ended the year with precipitation deficits of 10 to 13 inches. At Evansville, the 2010 precipitation total ranked as the 13th driest year on record. Records date back to 1896. The long-term moisture deficits were reflected in below normal streamflows on some waterways. Agricultural impacts were minimal since the growing season ended in the fall.

(IN-Z081) GIBSON, (IN-Z082) PIKE, (IN-Z085) POSEY, (IN-Z086) VANDERBURGH, (IN-Z087) WARRICK, (IN-Z088) SPENCER

12/12/10 08:00 CST	0	Winter Weather
12/12/10 21:00 CST	0	

The first blast of winter weather followed a strong cold front that swept rapidly east across the Mississippi and Lower Ohio Valleys. Behind the front, widespread snow showers and very windy conditions produced difficult travel conditions. Northwest winds ranged from 20 to 30 mph with higher gusts. Peak wind gusts were as high as 41 mph at Evansville. Snow accumulated from one to three inches across southwest Indiana. The lowest amounts were around an inch from Boonville north and east. Amounts of two to three inches covered the remainder of southwest Indiana, including Evansville and Princeton. The snow came down rather heavily at times during the afternoon, reducing visibility to around one-half mile for a couple hours. The Evansville Police Department reported a record-setting 50 accidents on the day of the storm. There were eleven people injured in those accidents. The Vanderburgh County sheriff office reported an additional 88 calls, of which roughly half were on Interstate 164. A vehicle slid into a police cruiser that was stopped at the scene of an accident. Numerous accidents on U.S. 41 in Gibson County resulted in some injuries and the closing of the highway near Fort Branch. Strong winds caused blowing and drifting that produced slippery spots well after the snow ended. Blowing snow reduced visibility sharply in open farm country, even after the snow ended.

(IN-Z081) GIBSON, (IN-Z082) PIKE, (IN-Z086) VANDERBURGH, (IN-Z087) WARRICK, (IN-Z088) SPENCER

12/15/10 22:00 CST	0	Ice Storm
12/16/10 06:00 CST	0	

(IN-Z085) POSEY

12/15/10 22:00 CST	0	Winter Weather
12/16/10 05:00 CST	0	

A low pressure system tracked eastward across western Tennessee. A warm front lifted northward ahead of this system, causing freezing rain. Around one-quarter inch of glaze formed on most surfaces, including trees and power lines. A few small branches were broken, but the main impact was on travel. Roads became hazardous due to ice and slush. There was slightly less precipitation west of the Evansville area, where one-tenth to one-quarter inch of glaze formed in Posey County.

(IN-Z081) GIBSON, (IN-Z082) PIKE, (IN-Z085) POSEY, (IN-Z086) VANDERBURGH, (IN-Z087) WARRICK, (IN-Z088) SPENCER

12/24/10 13:00 CST	0	Winter Weather
12/25/10 01:00 CST	0	

A weak low pressure system moved eastward across the Lower Mississippi Valley on Christmas Eve, reaching the Southeast states during the overnight hours. At the same time, a rather strong upper level disturbance moved southeast across the central Plains. This combination of systems resulted in widespread snowfall across southwest Indiana. Average snowfall amounts were right around three inches. Specific snowfall reports included 3 inches at Evansville, Newburgh, and Fort Branch, and 2.5 inches at Petersburg and Boonville. Much of the snow fell in a three-hour window, when visibility dropped to one-half mile and accumulations neared an inch per hour. Roads became slick and hazardous, causing an increase in accidents. A couple of accidents resulted in injuries.

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Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
KENTUCKY, Southwest				
(KY-Z001) FULTON, (KY-Z002) HICKMAN, (KY-Z003) CARLISLE, (KY-Z004) BALLARD, (KY-Z005) MCCracken, (KY-Z006) GRAVES, (KY-Z007) LIVINGSTON, (KY-Z008) MARSHALL, (KY-Z009) CALLOWAY, (KY-Z010) CRITTENDEN, (KY-Z011) LYON, (KY-Z012) TRIGG, (KY-Z013) CALDWELL, (KY-Z014) UNION, (KY-Z015) WEBSTER, (KY-Z016) HOPKINS, (KY-Z017) CHRISTIAN, (KY-Z018) HENDERSON, (KY-Z019) DAVIESS, (KY-Z020) MCLEAN, (KY-Z021) MUHLENBERG, (KY-Z022) TODD				
	12/01/10 00:00 CST	0		Drought
	12/31/10 23:59 CST	0		
Severe drought lingered across parts of western Kentucky. This drought began during the summer, and a cold and dry December resulted in little improvement. Drought conditions at the end of the month ranged from moderate across the Ohio River counties to severe along the Tennessee border. Subsoil moisture remained low. For the year 2010, most locations ended the year with precipitation deficits of 10 to 13 inches. 2010 was the fourth driest year on record at Paducah, where official records go back to 1949. At Paducah, 2.22 inches of precipitation fell in December. This was 2.16 inches below normal. The long-term moisture deficits were reflected in below normal streamflows on some waterways. Agricultural impacts were minimal since the growing season ended in the fall.				
(KY-Z003) CARLISLE, (KY-Z004) BALLARD, (KY-Z005) MCCracken, (KY-Z006) GRAVES, (KY-Z007) LIVINGSTON, (KY-Z008) MARSHALL, (KY-Z009) CALLOWAY, (KY-Z010) CRITTENDEN, (KY-Z011) LYON, (KY-Z012) TRIGG, (KY-Z013) CALDWELL, (KY-Z014) UNION, (KY-Z015) WEBSTER, (KY-Z016) HOPKINS, (KY-Z017) CHRISTIAN, (KY-Z018) HENDERSON, (KY-Z019) DAVIESS, (KY-Z020) MCLEAN, (KY-Z021) MUHLENBERG, (KY-Z022) TODD				
	12/12/10 06:00 CST	0		Winter Weather
	12/12/10 20:00 CST	0		
The first blast of winter weather followed a strong cold front that swept rapidly east across the Mississippi and Lower Ohio Valleys. Behind the front, widespread snow showers and very windy conditions produced difficult travel conditions. Northwest winds ranged from 20 to 30 mph with higher gusts. Snow accumulated from one to three inches across western Kentucky. The lowest amounts were an inch or less near the Mississippi River, including the cities of Bardwell and Hickman. Widespread amounts from 2 to 3 inches covered the remainder of western Kentucky. The snow came down rather heavily at times for a couple hours, reducing visibility to around one-half mile. Numerous accidents were reported around the region, including an overturned vehicle on the Interstate 24 bridge over the Tennessee River. Strong winds caused blowing and drifting that produced slippery spots well after the snow ended.				
(KY-Z001) FULTON, (KY-Z002) HICKMAN, (KY-Z003) CARLISLE, (KY-Z004) BALLARD, (KY-Z005) MCCracken, (KY-Z006) GRAVES, (KY-Z007) LIVINGSTON, (KY-Z008) MARSHALL, (KY-Z009) CALLOWAY, (KY-Z010) CRITTENDEN, (KY-Z011) LYON, (KY-Z012) TRIGG, (KY-Z013) CALDWELL, (KY-Z014) UNION, (KY-Z015) WEBSTER, (KY-Z016) HOPKINS, (KY-Z017) CHRISTIAN, (KY-Z021) MUHLENBERG, (KY-Z022) TODD				
	12/15/10 19:00 CST	0		Winter Weather
	12/16/10 01:00 CST	0		
(KY-Z018) HENDERSON, (KY-Z019) DAVIESS, (KY-Z020) MCLEAN				
	12/15/10 22:00 CST	0		Ice Storm
	12/16/10 06:00 CST	0		
A low pressure system tracked eastward across western Tennessee. A warm front lifted northward ahead of this system, causing freezing rain. In the Henderson and Owensboro areas, around one-quarter inch of glaze formed on most surfaces, including trees and power lines. The main impact was on travel. Roads became hazardous due to ice and slush. There was slightly less precipitation south and west of the Henderson and Owensboro areas, where less than one-quarter inch of glaze formed. The duration and impact of the ice diminished toward the south. Along and south of a Paducah to Madisonville line, the freezing rain resulted in just a few minor accidents.				
(KY-Z001) FULTON, (KY-Z002) HICKMAN, (KY-Z003) CARLISLE, (KY-Z004) BALLARD, (KY-Z005) MCCracken, (KY-Z006) GRAVES, (KY-Z007) LIVINGSTON, (KY-Z008) MARSHALL, (KY-Z009) CALLOWAY, (KY-Z010) CRITTENDEN, (KY-Z011) LYON, (KY-Z012) TRIGG, (KY-Z013) CALDWELL, (KY-Z014) UNION, (KY-Z015) WEBSTER, (KY-Z016) HOPKINS, (KY-Z017) CHRISTIAN, (KY-Z018) HENDERSON, (KY-Z019) DAVIESS, (KY-Z020) MCLEAN, (KY-Z021) MUHLENBERG, (KY-Z022) TODD				
	12/24/10 16:00 CST	0		Winter Weather
	12/25/10 02:00 CST	0		
A weak low pressure system moved eastward across the Lower Mississippi Valley on Christmas Eve, reaching the Southeast states during the overnight hours. At the same time, a rather strong upper level disturbance moved southeast across the central Plains. This combination of systems resulted in widespread snowfall across western Kentucky. Average snowfall amounts were two to three inches. There was a swath of 4 to 5 inches that extended from west to east across the Kentucky Lake and Pennyryle regions. The swath extended from eastern Carlisle County and northern Graves County, eastward across the Benton and Eddyville areas, to around Princeton and Greenville. Specific snowfall reports included 5 inches in Greenville, 4 inches at Dawson Springs and Calvert City, 3.5 inches at Hopkinsville and Paducah, and 3 inches at Morganfield. Much of the snow fell in a three-hour window, when visibility dropped to one-half mile and accumulations neared an inch per hour. Roads became slick and hazardous, causing vehicles to run off the road. Numerous accidents were reported. Accidents with injuries occurred in Henderson County, including one on the Audubon Parkway. In				

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Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
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Christian County, one person was injured in an accident. Several vehicles became stuck on hills in Muhlenberg County.

MISSOURI, Southeast

(MO-Z086) BOLLINGER, (MO-Z087) CAPE GIRARDEAU, (MO-Z100) WAYNE, (MO-Z107) CARTER, (MO-Z108) RIPLEY, (MO-Z109) BUTLER, (MO-Z110) STODDARD, (MO-Z111) SCOTT, (MO-Z112) MISSISSIPPI, (MO-Z114) NEW MADRID				
	12/01/10 00:00 CST		0	Drought
	12/31/10 23:59 CST		0	

Severe to extreme drought lingered across extreme southern parts of Missouri, mainly along the Arkansas border from Doniphan to New Madrid. Moderate drought extended as far north as a line from Van Buren to Sikeston. Elsewhere in southeast Missouri, the drought ended in December. Subsoil moisture remained low. For the year 2010, most locations ended the year with precipitation deficits of 10 to 13 inches. The long-term moisture deficits were reflected in below normal streamflows on some waterways. Agricultural impacts were minimal since the growing season ended in the fall.

(MO-Z076) PERRY, (MO-Z086) BOLLINGER, (MO-Z087) CAPE GIRARDEAU, (MO-Z100) WAYNE, (MO-Z107) CARTER, (MO-Z108) RIPLEY, (MO-Z109) BUTLER, (MO-Z110) STODDARD, (MO-Z111) SCOTT, (MO-Z114) NEW MADRID				
	12/15/10 11:00 CST		0	Winter Weather
	12/15/10 23:00 CST		0	

A low pressure system tracked eastward across western Tennessee. A warm front lifted northward ahead of this system, causing freezing rain. Less than one-tenth inch of glaze formed on most surfaces, including trees and power lines. The main impact was on travel. Roads became extremely hazardous due to ice. Many schools were closed. The greatest impact was along and south of a line from Sikeston (Scott County) to Van Buren (Carter County), where light freezing rain during the midday hours immediately coated roads with ice. In Stoddard County, one person was injured when her vehicle crashed and overturned on U.S. Highway 60 about a mile east of Dexter. Three other accidents in Stoddard County resulted in one injury apiece. Two of the accidents were on U.S. Highway 60, and the other was on Missouri Highway 25. One of the injuries was serious. In Butler County, one person was injured in a wreck on a bridge on Highway B. Highway PP was closed west of Poplar Bluff when more than a dozen vehicles ended up in ditches, including a state salt truck. Vehicles could not make it up a hill on Highway PP. A police cruiser slid into a ditch on Highway PP. Near Canalou in New Madrid County, there were roll-over accidents due to ice on Highway H. Dozens of cars slid off U.S. Highway 60 between Poplar Bluff and Ellsinore. Perry County sheriff dispatchers reported a very high number of accidents. From Cape Girardeau to Marble Hill, temperatures rose to around freezing about the time the precipitation began. This resulted in less serious travel problems from Cape Girardeau to Marble Hill.

(MO-Z076) PERRY, (MO-Z086) BOLLINGER, (MO-Z087) CAPE GIRARDEAU, (MO-Z111) SCOTT				
	12/24/10 07:00 CST		0	Winter Weather
	12/24/10 23:00 CST		0	

A weak low pressure system moved eastward across the Lower Mississippi Valley on Christmas Eve, reaching the Southeast states during the overnight hours. At the same time, a rather strong upper level disturbance moved southeast across the central Plains. This combination of systems resulted in widespread snowfall across parts of southeast Missouri. Average snowfall amounts were two to three inches from the Cape Girardeau area north and northwest, including Perryville and Jackson. Roads became slick and hazardous, causing an increase in accidents.

CARTER COUNTY --- 3.9 E CHILTON [36.94, -90.85], 4.8 NW ELLSINORE [36.97, -90.82]				
	12/31/10 13:24 CST	0.20M		Tornado (EF2, L: 2.63 mi , W: 200 yd)
	12/31/10 13:30 CST	0		Source: NWS Storm Survey

The tornado touched down near County Road 223, where a tin roof was peeled up on a small outbuilding. A gate and fence were blown about 50 feet. The tornado reached its maximum width and its peak intensity as it crossed County Road 225. This is where a permanent home suffered partial wall and roof loss, a mobile home was blown 15 feet off its foundation, and over one hundred trees were uprooted. The residents of the mobile home took refuge in the laundry room, which was the only room not destroyed. Residents of both homes were provided food and shelter by the Red Cross. A large oak tree fell on a vehicle, causing major damage to the vehicle. Two other vehicles were damaged by debris. A shed and outbuildings were destroyed. A bicycle was blown up into a tree. A twin-pole high voltage transmission tower was partially blown over. The tornado crossed U.S. Highway 60, then struck a sawmill on Highway FF. The 40-by-100 foot sawmill was destroyed. None of the eight workers in the sawmill were injured, possibly because they jumped into a sawdust pit. A home near the sawmill lost part of its roof (less than 20 percent), and dozens of large trees were uprooted. As the tornado crossed County Road 327, a few more trees were blown down. Part of a metal roof from a small barn was blown into a tree. Due to damage to the high-voltage transmission lines, over 1,500 customers from Van Buren to Ellsinore were without power for up to four hours. A National Weather Service damage survey confirmed a convergent signature to the debris pattern. A person in the area reported witnessing the tornado. Peak winds in this tornado were estimated near 120 mph.

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Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
BUTLER COUNTY --- 5.7 NNE STRINGTOWN [36.82, -90.52], 5.5 W HILLARD [36.82, -90.52]				
	12/31/10 14:25 CST		0.25M	Tornado (EF2, L: 0.24 mi , W: 100 yd)
	12/31/10 14:26 CST		0	Source: NWS Storm Survey

The tornado briefly touched down in the vicinity of a residence along County Road 421. About one-third of the roof of the well-built residence was removed, landing about 1,000 feet away in a field. Seven people were in the residence at the time. They were not in the basement, but nobody was injured. Other damage consisted of several uprooted and snapped trees, shingles off a small shed, a damaged antenna tower, and damaged fences. A National Weather Service damage survey indicated a convergent orientation to the debris. Peak winds in this tornado were estimated around 120 mph. The average path width was 50 yards.

MISSISSIPPI COUNTY --- 10.0 S BERTRAND [36.78, -89.43]				
	12/31/10 16:25 CST		0	Funnel Cloud
	12/31/10 16:25 CST		0	Source: Trained Spotter

A trained spotter reported a rotating funnel cloud.

A pre-frontal line of thunderstorms developed ahead of a cold front over western Missouri. The broken line of storms extended southwestward across southeast Missouri. Isolated bowing segments and supercells were embedded within portions of the line. The storms existed within a narrow axis of marginal instability with mixed layer capes at or below 500 j/kg. A low level jet axis along the Mississippi River provided more than sufficient vertical wind shear for embedded supercells with isolated tornadoes.